tality. The peak normalized CK-MB ratio (CKMBR) was determined and MI was classified as: Class 1, CKMBR >1 and <3 without EKG ST changes; Class 2, CKMBR $\geq$ 3 and $\leq$ 8 or CKMBR >1 and <3 with EKG ST changes; or Class 3, CKMBR >8 or Q wave MI. Patients were evaluated for 30 day and one year mortality as well as a combined endpoint of death, follow-up target vessel MI or revascularization. One year follow-up is complete for 905 patients.

MI Class	PTCA [n = 492] n (%)	DCA [n = 497] n (%)	30 day death n [%]	30 day endpoint n [%]	One year death n [%]
1	37 (7.5)	80 (16.1)	1 [*0.9*]	4 [*3.4*]	2 [*1.7*]
2	23 (4.7)	61 (12.3)	0 [*0.0*]	6 [*7.1*]	0 [*0.0*]
3	11 (2.3)	31 (6.2)	0 [*0.0*]	15 [*35.7*]	0 [*0.0*]
Any MI	71 (14.4)	172 (34.6)	1 [*0.4*]	25 [*10.3*]	2 [*0.8*]
No MI	404 (81.3)	310 (62.4)	1 [*0.1*]	5 [*0.7*]	7 [*1.0*]

Conclusions: 1) MI occurred more frequently after DCA than PTCA. 2) MI was associated with a higher incidence of the 30 day endpoint, due mainly to abrupt closure, however, there was no significant increase in 30 day or one year mortality. 3) Data for the combined one year endpoint will be presented.

10:45

740-2 Coronary Intervention in the Diabetic Patient: Improved Outcome Following Stent Implantation Versus Balloon Angioplasty

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Recent studies have demonstrated excess morbidity and mortality in diabetic patients undergoing coronary angioplasty (PTCA) and have suggested superior outcomes with bypass surgery. Since the role of new transcatheter interventions in this population is uncertain, we sought to determine whether stent placement was superior to PTCA in diabetics with coronary artery disease. Of 594 patients with new lesions of native coronary arteries in the randomized STRESS I-II Trial, 92 (15.5%) were diabetic. Outcomes of the 47 diabetics assigned to stent and the 45 assigned to PTCA were compared. The two diabetic cohorts had similar baseline characteristics, vessel size, lesion length, and minimal lumen diameter (mld). Procedural angiographic success was superior in patients assigned to stenting (100% versus 82%, p < 0.01). The diabetic group assigned to stents had greater post-procedural mld (2.34 ± 0.44 mm versus 1.87 ± 0.52 mm, p < 0.0001) and acute gain (1.61 ± 0.47 mm versus 1.06 ± 0.46 mm, p < 0.0001). At 6 months, mld was 1.69 ± 0.57 mm in the stent group and 1.38 ± 0.60 mm in the PTCA group (p = 0.03). Late loss was not significantly different after stent or PTCA (0.71 ± 0.53 mm versus 0.66 ± 0.55 mm, p = ns), but net gain was greater with stenting (0.97 ± 0.55 mm versus 0.52 ± 0.52 mm, p < 0.001). Restenosis rates were 60% in the PTCA group versus 24% in the stent group (p < 0.01). This was accompanied by a lower need for target lesion revascularization after stenting (13% versus 31%, p = 0.03). At one year, event-free survival was 79% in the stent group and 64% in the PTCA group (p = 0.13). *Conclusions:* Compared to balloon angioplasty, elective stent placement in diabetic patients with coronary artery disease results in (i) superior procedural results, (ii) less restenosis, and (iii) improved clinical outcome with fewer repeat revascularization procedures.

11:00

740-3 Stent Placement in Diabetic versus Non-Diabetic Patients. Six-Month Angiographic Follow-Up

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Patients (pts) with diabetes (D) have a worse clinical outcome after PTCA in comparison to non-diabetic patients (ND). To study the angiographic follow-up of stented coronary lesions in pts with D, we compared 190 D pts (246 lesions) versus 991 ND pts (1223 lesions) with successful stent placement. Six-month angiographic follow-up was performed in 134 D pts (70.5%) and

	Diabetic	Non-diabetic	p-value
Acute gain (mm)	2.18 ± 0.62	2.23 ± 0.65	ns
Elastic recoil (mm)	0.30 ± 0.22	0.30 ± 0.23	ns
Late loss (mm)	1.35 ± 0.85	1.05 ± 0.78	< 0.0001
Loss index	0.59 ± 0.34	0.50 ± 0.42	0.003
% Diameter stenosis	47.1 ± 24.8	37.3 ± 23.3	< 0.0001
Reocclusion rate	4.1%	2.6%	ns
Restenosis rate	39.6%	23.6%	< 0.0001

in 716 ND pts (72.3%, p = 0.63). Quantitative angiographic analysis was performed on per-lesion basis by edge detection algorithm. Restenosis was defined by a %-diameter stenosis >50%. D pts did not differ from ND pts with respect to vessel distribution, balloon size, balloon pressure and reference diameter before and after intervention.

Conclusions: Stent placement in diabetic patients can be achieved with good acute angiographic results. Long-term angiographic outcome however, is impaired by a significantly higher late loss and restenosis rate.

11:15

740-4 Does Diabetes Influence Clinical Recurrence After Coronary Stent Implantation?

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Diabetes mellitus (DM) has consistently been shown to strongly influence the angiographic loss index and binary restenosis rates after balloon PTCA procedures. To determine if DM has similar effects on *clinical outcomes* in patients after native vessel coronary stenting, we evaluated the acute quantitative angiographic (QCA) results, major in-hospital complications (MC = death, Q-wave MI, or CABG), and late (>6 months) clinical outcome {target lesion revascularization (TLR)} of 208 patients with DM (96 pts requiring insulin and 112 pts treated with oral therapy) compared to 662 non-diabetic pts.

	Non-DM	Oral	Insulin
In-hospital MC (%)	1.2	2.6	2.9
QCA			
Reference (mm)	3.00 ± 0.5	2.89 ± 0.6*	2.87 ± 0.6*
Final MLD (mm)	2.73 ± 0.5	2.52 ± 0.6**	2.75 ± 0.7
Final % DS	12.8 ± 14	16.9 ± 15*	10.2 ± 15
TLR (%)	15.4	19.5	24.6**

*p < 0.05; ** p < 0.01 compared with non-diabetic pts

We conclude: (1) Major in-hospital complications are not significantly different among DM pts (insulin dependent vs non-insulin dependent). (2) Reference vessel size is smaller in DM pts. (3) However, despite similar angiographic results, late outcomes are clearly worse in DM pts (esp. those requiring insulin). Thus, although absolute TLR rates may be lower after coronary stent therapy, insulin-requiring DM, *in particular,* still remains an important predictor of late clinical outcomes.

11:30

740-5 The "Full Metal Jacket": Procedural Results and Late Clinical Outcomes after Placement of Three or More Coronary Stents

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Previous studies have suggested higher restenosis rates in patients treated with multiple stents. To determine the clinical outcomes in patients treated with multiple (≥3) stents, we evaluated procedural success, major in-hospital complications (Q wave MI, CABG and death), subacute stent thrombosis, and target lesion revascularization (TLR) at follow-up (>6 months) in 2,352 consecutive patients (3,310 lesions) treated by one, two, or ≥three stents. Multiple stents were implanted either for diffuse disease or extensive dissection in the setting of abrupt/threatened closure.

# Stents (# pts)	One (1774)	Two (499)	≥Three (79)	P value
SVG/RCA (%)	32/28	31/34	45/39	0.043/0.005
Lesion length (mm)	8.4 ± 5.3	14.4 ± 9.4	21.0 ± 11.7	< 0.0001
Procedure success	97.3%	96.2%	97.5%	0.51
Major complications	2.1%	3.0%	2.5%	0.37
CKMB >5× nml	12.7%	17.6%	29.5%	< 0.0001
Subacute closure	1.2%	0.6%	2.5%	0.26
TLR at follow-up	11.2%	18.0%	16.4%	< 0.0001

We conclude: patients treated with ≥3 stents (1) have similar in-hospital procedural success and major complications, despite significantly higher CKMB elevations, and (2) manifest higher TLR than one-stent patients, (but similar TLR vs. two-stent patients). Thus, "full metal jacket" stent procedures may be a viable therapeutic alternative in appropriate patients.